

REMARKS/ARGUMENTS

Claims 1-3 and 6-9 are pending.

Claims 1 and 7 have been amended.

Claims 1 and 7 are independent claims.

Applicant has amended Claims 1 and 7 so as to more clearly distinguish the present invention, as defined by Claims 1 and 7, over the prior art. Applicant respectfully submits that the amendments to each of independent Claims 1 and 7 do not contain new matter. Applicant respectfully submits that Claims 1-3 and 6-9 are patentable over the prior art.

A. The 35 U.S.C. §103 Rejections of Claims 1-3, 6 and 7-9:

Claims 1-3 and 6 stand rejected under 35 U.S.C. §103(a) as being obvious over Redeker, et al., U.S. Patent No. 6,523,553 (Redeker) in view of Konishi, et al., U.S. Patent No. 6,385,805 (Konishi), and further in view of Moinpour, et al., U.S. Patent No. 6,334,229 (Moinpour). Claims 1-3 and 7-9 stand rejected under 35 U.S.C. §103(a) as being obvious over Stephens, et al., U.S. Patent No. 5,875,507 (Stephens) in view of Fishkin, et al., U.S. Patent No. 6,202,658 (Fishkin) and further in view of Moinpour, et al., U.S. Patent No. 6,334,229 (Moinpour).

As noted above, Applicant has amended independent Claims 1 and 7 so as to more clearly distinguish the present invention, as defined by Claims 1 and 7, over the prior art. Applicant respectfully submits that the amendments to each of Claims 1 and 7 do not contain new matter. Applicant respectfully submits that Claims 1-3 and 6-9 are patentable over the prior art.

I. Claims 1-3 and 6 are patentable over the prior art:

Applicant respectfully submits that Claims 1-3 and 6 are patentable over Redeker in view of Konishi and further in view of Moinpour.

Applicant has amended Claim 1 to read as follows:

Claim 1 (Currently Amended): An apparatus for cleaning a substrate, comprising:
a plurality of rollers adapted to support a substrate in a vertical orientation;
a scrubber brush adapted to contact the substrate supported by the plurality of rollers; and
a sonic nozzle positioned at an elevation below the elevation of the scrubber brush and adapted so as to output a sonicated fluid spray that contacts a beveled edge of the vertically oriented substrate located below the sonic nozzle such that fluid having sufficient sonic energy to harm the scrubber brush will not contact the scrubber brush;

wherein the sonic nozzle is angled so as to direct the sonicated fluid spray towards the vertically oriented substrate and away from the scrubber brush.

Applicant respectfully submits that Redeker, Konishi, Moinpour, and any combination thereof, do not disclose or suggest the recited apparatus comprising a sonic nozzle positioned at an elevation below the elevation of the scrubber brush and adapted so as to output a sonicated fluid spray that contacts a beveled edge of the vertically oriented substrate located below the sonic nozzle such that fluid having sufficient sonic energy to harm the scrubber brush will not contact the scrubber brush.

Applicant further respectfully submits that Redeker, Konishi, Moinpour, and any combination thereof, do not disclose or suggest the recited apparatus wherein the sonic nozzle is angled so as to direct the sonicated fluid spray towards the vertically oriented substrate and away from the scrubber brush.

In view of the foregoing, Applicant respectfully submits that Redeker, Konishi, Moinpour, and any combination thereof, do not render Claim 1 unpatentable. Allowance of Claim 1 is respectfully requested. Allowance of Claims 2, 3 and 6, which depend from Claim 1, is also respectfully requested.

II. Claims 1-3 and 7-9 are patentable over the prior art:

Applicant respectfully submits that Claims 1-3 and 7-9 are patentable over the prior art.

a. Claims 1-3 are patentable over Stephens in view of Fishkin and further in view of Moinpour:

Applicant respectfully submits that Stephens, Fishkin, Moinpour, and any combination thereof, do not disclose or suggest the recited apparatus comprising a sonic nozzle positioned at an elevation below the elevation of the scrubber brush and adapted so as to output a sonicated fluid spray that contacts a beveled edge of the vertically oriented substrate located below the sonic nozzle such that fluid having sufficient sonic energy to harm the scrubber brush will not contact the scrubber brush.

Applicant further respectfully submits that Stephens, Fishkin, Moinpour, and any combination thereof, do not disclose or suggest the recited apparatus wherein the sonic nozzle is angled so as to direct the sonicated fluid spray towards the vertically oriented substrate and away from the scrubber brush.

In view of the foregoing, Applicant respectfully submits that Stephens, Fishkin, Moinpour, and any combination thereof, do not render Claim 1 unpatentable. Allowance of Claim 1 is respectfully requested. Allowance of Claims 2 and 3, which depend from Claim 1, is also respectfully requested.

b. Claims 7-9 are patentable over Stephens in view of Fishkin and further in view of Moinpour:

Applicant has amended Claim 7 to read as follows:

Claim 7 (Currently Amended): An apparatus for cleaning a substrate, comprising:

 a plurality of rollers adapted to support a substrate in a vertical orientation;

a scrubber brush adapted to contact the substrate supported by the plurality of rollers; and a sonic nozzle positioned at an elevation below the elevation of the scrubber brush and adapted so as to output a sonicated fluid spray that contacts a major surface of a the vertically oriented substrate supported by the plurality of rollers at a position below the roller brush such that fluid having sufficient sonic energy to harm the scrubber brush will not contact the scrubber brush;

wherein the sonic nozzle is angled so as to direct the sonicated fluid spray towards the vertically oriented substrate and away from the scrubber brush.

Applicant respectfully submits that Stephens, Fishkin, Moinpour, and any combination thereof, do not disclose or suggest the recited apparatus comprising a sonic nozzle positioned at an elevation below the elevation of the scrubber brush and adapted so as to output a sonicated fluid spray that contacts a major surface of the vertically oriented substrate supported by the plurality of rollers at a position below the roller brush such that fluid having sufficient sonic energy to harm the scrubber brush will not contact the scrubber brush.

Applicant further respectfully submits that Stephens, Fishkin, Moinpour, and any combination thereof, do not disclose or suggest the recited apparatus wherein the sonic nozzle is angled so as to direct the sonicated fluid spray towards the vertically oriented substrate and away from the scrubber brush.

In view of the foregoing, Applicant respectfully submits that Stephens, Fishkin, Moinpour, and any combination thereof, do not render Claim 7 unpatentable. Allowance of Claim 7 is respectfully requested. Allowance of Claims 8 and 9, which depend from Claim 7, is also respectfully requested.

B. Conclusion

For the above reasons, Applicant respectfully submits that pending Claims 1-3 and 6-9 are in condition for allowance.

Allowance of pending Claims 1-3 and 6-9 is respectfully requested.

Applicant does not believe that any fees are due with this Amendment. However, in the event that any fees are due, please charge Deposit Account No. 04-1696 for any such fees required by this Amendment. The Applicant encourages the Examiner to telephone Applicant's Attorney should any questions remain.

Respectfully Submitted,



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